

Substitute for form 1449A/PTO

# INFORMATION DISCLOSURE STATEMENT BY APPLICANT

**(Use as many sheets as necessary)**

Sheet	1	of	1
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**Complete if Known**

<b>Application Number</b>	10/687,289
<b>Filing Date</b>	October 15, 2003
<b>First Named Inventor</b>	Ivan Osorio
<b>Art Unit</b>	3736
<b>Examiner Name</b>	Not assigned
<b>Attorney Docket Number</b>	011738.00141

## U.S. PATENT DOCUMENTS

[illegible]

## FOREIGN PATENT DOCUMENTS

[illegible]

**Examiner  
Signature**

Alysa M. Alter

Date Considered

9/22/05

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Sheet 1 of 4

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First Named Inventor	Ivan Osorio
Art Unit	3736
Examiner Name	TBD
Attorney Docket Number	011738.00141

**U.S. PATENT DOCUMENTS**

Examiner Initials *	Cite No. <sup>1</sup>	Document Number	Issue/Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code <sup>2</sup> (if known)			
HA		US- 3522811	08/04/1970	Schwartz et al.	
		US- 3850181	11/26/1974	Saul Liss	
		US- 3863625	02/04/1975	Viglione et al.	
		US- 3967618	07/06/1976	Sidney A. Ross	
		US- 3993046	11/23/1976	Fernandez et al.	
		US- 4019518	04/26/1977	Maurer et al.	
		US- 4038536	07/26/1977	Paul L. Feintuch	
		US- 4295474	10/20/1981	Robert E. Fischell	
		US- 4373527	2/15/1983	Robert E. Fischell	
		US- 4417592	11/29/1983	John E. Roy	
		US- 4566464	01/28/1986	Piconne et al.	
		US- 4581758	04/08/1986	Coker et al.	
		US- 4610259	09/09/1986	Cohen et al.	
		US- 4702254	10/27/1987	Jacob Zabara	
		US- 4944299	07/31/1990	Sergiu Sulvian	
		US- 5311869	05/19/1992	Nappholz et al.	
		US- 5269303	12/14/1993	Wemicke et al.	
		US- 5299569	04/05/1994	Wemicke et al.	
		US- 5311876	05/17/1994	Olsen et al.	
		US- 5335657	08/09/1994	Terry Jr. et al.	
		US- 6473639	10/24/2002	Fischell et al.	
		US- 6480743	11/12/2002	Kirkpatrick et al.	
		US- 6560486	05/06/2003	Osorio et al.	
		US- 6591138	07/08/2003	Fischell et al.	
		US- 6597954	07/22/03	Pless et al.	
		US- 6647298	11/11/2003	Fischell et al.	
HA		US- 2002/0013614	01/31/2002	David L. Thompson	

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Sheet 2 of 4

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Application Number	10/687,289
Filing Date	October 15, 2003
First Named Inventor	Ivan Osorio
Art Unit	3736
Examiner Name	TBD
Attorney Docket Number	011738.00141

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		Number - Kind Code <sup>2</sup> (if known)			
AA		US- 5487754	01/30/1996	Snell et al.	
		US- 5626145	05/06/1997	Clapp et al.	
		US- 5883422	11/04/1997	Mark T. Rise	
		US- 5713922	02/03/1998	Gary William King	
		US- 5713923	02/03/1998	Ward et al.	
		US- 5716377	02/10/1998	Rise et al.	
		US- 5720770	02/24/1998	Nappholz et al.	
		US- 5743860	04/28/1998	Hively et al.	
		US- 5752976	05/19/1998	Duffin et al.	
		US- 5792186	08/11/1998	Mark T. Rise	
		US- 5978702	11/02/1999	Ward et al.	
		US- 5995868	11/30/1999	Dorfmeister et al.	
		US- 6016449	01/18/2000	Fischell et al.	
		US- 6018682	01/25/2000	Mark T. Rise	
		US- 6066163	05/23/2000	Michael Sasha John	
		US- 6083248	07/04/2000	David L. Thompson	
		US- 6094598	7/25/2000	Elsberry et al.	
		US- 6117066	09/12/2000	Abrams et al.	
		US- 6128537	10/03/2000	Mark T. Rise	
		US- 6128538	10/03/2000	Fischell et al.	
		US- 6134474	10/17/2000	Fischell et al.	
		US-6200265	03/13/2001	Walsh et al.	
		US- 6224549	05/01/2001	Win Van Drongelen	
		US- 6227203	05/08/2001	Rise et al.	
		US- 6230049	05/08/2001	Fischell et al.	
		US- 6337997	01/08/2002	Mark T. Rise	
		US- 6341236	01/22/2002	Osorio et al.	
		US- 6353754	03/05/2002	Fischell et al.	
		US- 6356784	03/12/2002	Lozano et al.	
		US- 6360122	03/19/2002	Fischell et al.	
		US- 6366813	04/02/2002	Daniel J. Di Lorenzo	
		US- 6374140	04/16/2002	Mark T. Rise	
		US- 6427086	07/30/2002	Fischell et al.	
		US- 6459936	10/01/2002	Fischell et al.	
		US- 6466822	10/15/2002	Benjamin D. Piess	
AA		US- 6473639	10/24/2002	Fischell et al.	

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<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>		Application Number	10/687,289
		Filing Date	October 15, 2003
		First Named Inventor	Ivan Osorio
		Art Unit	3736
		Examiner Name	TBD
		Attorney Docket Number	011738.00141
(Use as many sheets as necessary)			
Sheet	3	Of	4

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
AA		Alan V. Oppenheim & Ronald W. Schaffer, Digital Signal Processing, Prentice-Hall, Inc., Englewood Cliffs, New Jersey, 1975, pg. 18-24.	
		Gotman J., & Gloor, P., "Automatic Recognition and Quantification of Linterictal Epileptic Activity in the Human Scalp EEG", Electroencephalography and Clinical Neurophysiology, 1976, 41:513-529.	
		B. Litt and J. Echazu, "Prediction of Epileptic Seizures", 1 The Lancet Neurology 22 May 2002	
		H. Qu & J. Gotman, "A Seizure Warning System For Long-term Epilepsy Monitoring", 45 Neurology 2250, 1995	
		J. Gotman, "Automatic Recognition of Epileptic Seizures in the EEG", 54 Electroencephalography and Clinical Neurophysiology at 530-540, 1982	
		Lapkin et al., "The Electroencephalogram in Childhood Basilar Artery Migraine", 27 Neurology 580-583, June 1977)	
		Murro et al., "Computerized Seizure Detection of Complex Partial Seizures", 79 Electroencephalography and Clinical Neurophysiology 330-333 (1991)	
		P. Rajna and C. Lona, "Sensory Stimulation for Inhibition of Epileptic Seizures", 30(2) Epilepsia 168-174, 1989	
		R.P. Lesser et al., "Brief Bursts of Pulse Stimulation Terminate Afterdischarges Caused by Cortical Stimulation", Neurology 53, December 1999	
		Webber, W.R.S. et al., "Automatic EEG Spike Detection: What Should the Computer Imitate", 87 Electroencephalography and Clinical Neurophysiology 330-333 (1993)	
AA		Grassberger, Peter et al., "Characterization of Strange Attractors" Vol. 50, No.5., The American Physical Society, January 31, 1983.	

Examiner Signature	Alysa M. Alter	Date Considered	9/22/05
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Sheet	4	of	4

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AA		Iasemidis, L. D. and Sackellares, J. C. "Chaos Theory and Epilepsy". The Neuroscientist, 2:118--126, 1996. <retrieved from <a href="http://citeseer.ist.psu.edu/iasemidis96chaos.html">http://citeseer.ist.psu.edu/iasemidis96chaos.html</a> >	
		Elger, Christian E., et al., "Short Communication: Seizure Prediction By Non-Linear Time Series Analysis of Brain Electrical Activity" European Journal of Neuroscience, Vol. 10, pgs. 786-789 (1998)	
		Gotman, J., "Seizure Recognition and Analysis", Montreal Neurological Institute and Department of Neurology and Neurosurgery, McGill University, Montreal, Quebec. H3A 2B4 (Canada)	
		Vachtsevanos, G.J., et al. "Neuro-Fuzzy Approaches to Decision Making: A Comparative Study With An Application to Check Authorization" Journal of Intelligent and Fuzzy Systems, Vol. 6, pgs. 259-278 (1998)	
AA		Osorio, Ivan, et al., "Real-Time Automated Detection and Quantitative Analysis of Seizures and Short-Term Prediction of Clinical Onset" Epilepsia, Vol. 39(6) pgs. 615-627, (1998)	

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